K-C.1.1# - TIMBER SUBJECT TO AGREEMENT (09/2004)

In addition, there is within Contract Area an unestimated quantity of:

Species

Product

Douglas-fir and other coniferoGrn Bio Cv

that shall be Included Timber upon written agreement.

K-C.3# - RESERVE TREES (09/2004)

Notwithstanding the designations for cutting under C.3.1, C.3.2, C.3.3, or C.3.4, live or dead <u>Wildlife</u> tree reserve trees or groups of reserve trees within such cutting units or clearings shall be left uncut. Reserve trees are identified by <u>Orange tree marking paint</u> and shall be protected in accordance with K-G.3.2#. Units with reserve trees are shown on Contract Area Map.

K-C.3.5.7# - INDIVIDUAL TREE DESIGNATION (OPTION 1) (06/2008)

All see attached specifications which meet the minimum tree diameter stated in A.2 are designated for cutting. Additional timber to be cut, if any, will be designated for cutting in accordance with C.3.7.

Leave trees, Marked with <u>Orange tree marking paint</u>, or identified by, N/A, are not to be cut, unless designated by the Forest Service.

K-D.4.7# - ABNORMAL DELAY (05/2005)

Unless otherwise agreed, felled timber meeting Utilization Standards shall be removed by Contractor pursuant to C.2 and shall be presented for Scaling within the time period indicated in the following removal schedule. The number of days shown are consecutive calendar days.

Failure to remove and present such timber for Scaling within the required time limits will be considered abnormal delay, subject to D.4.7.

See attached removal schedule.

Table Pursuant to K-C.3.5.7# - Individual Tree Designation, (06/2008)

Subdivision	D x D Spacing	1/ Description of Included Timber (See Other Requirements)
15, 20, 211, 24	17 feet	Only live Douglas-fir, Western Hemlock, Incense Cedar, True firs, Ponderosa Pine and Mountain Hemlock, if it is within the specified spacing of a live conifer with a larger stump diameter. All other species are not to be cut.
201, 203, 205	LTM	Only live Douglas-fir, Western Hemlock, Incense Cedar, True firs, Ponderosa Pine and Mountain Hemlock, not marked with orange tree marking paint above and below stump height are to be cut.

-	
	Contractor agrees to the following measures:
All	Down timber from adjacent private land will be protected from cutting and kept separate from Included Timber.
	 Boundary trees are designated with orange tree marking paint and blue boundary cards. Boundary trees with orange paint and blue boundary tags shall be included in the DXD spacing when the boundary tree has a larger stump diameter than other trees within the DXD spacing. Boundary trees shall always "cut" a tree within subdivision/payment unit. Boundary trees shall not be cut. Orange painted trees within Group selects (LTM - Gaps) will not be Included Timber. Orange painted trees within Dominant Tree Release (DTR) will not be Included Timber.
5	 If orange painted buffer trees along streams are needed to be cut to accommodate a corridor they shall be directionally felled into the channel and left on site. If Contractor premarks units, trees within 50 feet of Forest roads will be marked on the back side of the tree facing away from road, unless waived by Forest Service.

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Definitions:

1 D x D: Designation by Description.

- 2 LTM: Leave Tree Mark.
- 3 D \times D Stump Height: Measure at 4 inches above the ground on the uphill side of the tree. When obstacles are present on the uphill side of the tree measure 4 inches from the obstacles.

Other requirements:

- 1 Minimum stump height left for inspection purposes will be 4 inches.
- 2 D x D Diameter: Measure at the DxD specified stump height of 4 inches, outside and bark perpendicular to the bole of the tree. Stumps missing all or part of their bark will be measured as presented.
- 3 D x D Spacing: Measure slope distance at 4 inches above the ground from the closest point between trees. This $\underline{\text{does not}}$ need to be measured on the uphill side of the tree.
- 4 All leave trees will remain standing.
- 5 Down Tree: a) An entire tree lying on the ground with an attached root wad; b) a root sprung tree with broken and exposed roots showing above the ground (root sprung trees must remain identifiable after logging).

REMOVAL SCHEDULE PURSUANT TO K-D.4.7# - ABNORMAL DELAY (05/2005)

Included Timber	Time	Limits
ALL	60	days after felling is started.
All timber decked during construction clearing.	60	days after felling on each Specified Road constructed by Contractor is initiated.
Timber decked during road construction.	60	days after Forest Service authorizes Contractor to use roads pursuant to F.2.

K-E.2.2 - CHANGES IN STEWARDSHIP CREDITS (06/2008)

The Contracting Officer may at any time, by written order, make changes within the general scope of this contract in any one or more of the following:

- (1) Specifications for Stewardship Projects listed in K-G.9#.
- (2) Quantities of Stewardship Projects listed in A.4.3.
- (3) Prices for Stewardship Projects listed in A.4.3.
- (4) Place of performance of the Stewardship Projects as shown on the Contract Area Map.

In addition, by written agreement, new Stewardship Projects may be added to K-G.9# and A.4.3 as long as they are within the general scope of this contract. Contract Area may be expanded to add new stewardship projects.

If a written change order causes an increase in the time required for performing any part of the work under this contract, the Contracting Officer shall make an adjustment in the Contract Termination Date and shall modify the contract accordingly.

The Contractor must assert their right to equitable adjustments under this provision within 30 days from receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before contract closure.

If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

Failure to agree to an adjustment under this provision shall be considered a dispute under J.2. However, nothing in this provision shall excuse the Contractor from proceeding with the contract as changed.

In addition, by written modification of the contract, new Stewardship Projects may be added to K-G.9# and A.4.3, with or without expanding the Contract Area, as long as they are within the general scope of this contract.

K-E.4 - PAYMENTS NOT RECEIVED (08/2012)

- (a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date specified in the bill for collection, Contracting Officer will suspend all or any part of Contractories Operations until payment or acceptable payment guarantee is received. Other charges include, but are not limited to:
- (i) Slash disposal, road maintenance, and contract scaling deposits;
- (ii) Cooperative work at rates established by specific agreement under E.2.1.8;
- (iii) Damages pursuant to J.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to E.2.2;
- (vi) Periodic payments pursuant to E.2.1.3;
- (vii) Extension Deposits pursuant to E.2.1.7; and
- (viii) Other mandatory deposits.
- (b) Failure to pay amounts due by the date specified in the bill for collection shall be considered a breach under J.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date specified for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.
- (c) Pursuant to the Debt Collection Improvement Act of 1996, as amended, if payment is not received by Forest Service within 15 days after the date of issue indicated on the bill for collection:
- (i) Simple interest shall be assessed at the Current Value of Funds Rate as established by the Secretary of the Treasury. Interest will begin to accrue as of the date of issue indicated on the initial bill for collection.
- (ii) Debtors will be assessed administrative charges, in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.
- (iii) A penalty charge of six (6) percent per annum will be assessed on any portion of a debt delinquent more than 90 days. This penalty charge is in addition to interest and administrative charges under paragraphs (c)(i) and (c)(ii). The penalty charge shall accrue from the date of issue indicated on the bill for collection and shall be assessed on all outstanding amounts, including interest and administrative costs assessed under paragraphs (c)(i) and (c)(ii).
- (iv) Payments will be credited on the date received by the Federal Depository or Collection Officer designated on the bill for collection.
- (d) Forest Service remedies for Contractor; failure to make payment for timber cut and other charges when due, except for accrual of interest, suspension of all or any part of Contractor; Operations, and administrative offset, shall be stayed for so long as:
 - (i) A bona fide dispute exists as to Contractor¿s obligation to make such payment and
 - (ii) Contractor files and prosecutes a timely Claim.

K-F.1.0.1# - TEMPORARY ROAD AND LANDING CONSTRUCTION (OPTION 1) (06/2010)

In addition to the requirements of F.1 and G.6.3, Contractor and Forest Service will agree to the design, construction, maintenance, closure, and obliteration of all Temporary Roads.

Construction of Temporary Roads in areas shown on Contract Area Map shall be in accordance with the attached plans or criteria.

Unless otherwise agreed, if Contractor's Operations require more than 0 cubic yards of rock for Temporary Roads, landings, or other temporary uses, such rock shall be obtained from commercial sources.

See attached Plans and/or Criteria.

PLANS AND/OR CRITERIA PURSUANT TO K-F.1.0.1# - TEMPORARY ROAD AND LANDING CONSTRUCTION (OPTION 1) (06/2010)

- Temporary roads shall be constructed to a minimum width to accommodate logging equipment and shall be located to minimize the number of trees cut while minimizing the extent of ground impacted by construction.
- All trees to be cut by the Contractor shall be identified and designated for cutting by the Forest Service prior to cutting.
- On native running surfaces, hauling shall be restricted to when dry conditions exist. Hauling is restricted from October 15 thru May 15.
- 4. Clearing and grubbing debris shall be scattered in areas designated on the ground by the Forest Service.
- 5. Straw bales or other agreed upon erosion control devices shall be placed in ditches, as needed, to prevent sediment from entering stream courses. All straw bales will be certified weed free.
- 6. At the end of each season and/or when Contractor is done with the temporary road and/or termination of contract, Contractor shall install drivable drain dips and water bars and close the road to normal vehicular traffic, K-F.1.0.1#.
- 7. In accordance with G.2.2, Temporary Roads to remain open, to facilitate short-term access, Contractor agrees to leave temporary road open as directed by Forest Service.
- 8. Methods of closure shall be determined based on existing terrain conditions and needs at the time of closure.
- 9. Reopening of temporary roads may occur between May 31 and October 15.

PLANS AND CRITERIA PURSUANT TO K-F.1.0.1# TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2010) (Continued)

- 10. Other erosion control measures to stabilize roads and prevent erosion on road grades over 8% may require a structure approximately every 100 feet. Seed and fertilizer for the road will be in accordance with K-G.6.0#.
- 11. Culverts shall be placed in all stream courses, along/across temporary roads. Culverts shall be corrugated metal pipe and shall not be less than 18 inches diameter.
- 12. Culvert installation in live streams shall take place between July 1 and August 15, K-G.3.1.5#. During culvert installation in live streams, the streams will be temporarily diverted around the site and biodegradable geotextile cloth will be placed downstream from the site to minimize transport of sediment, unless other methods are agreed to in writing with the Forest Service.
- 13. Culverts shall not be left in place after Contractor s operations are completed.
- 14. Landings shall be designed in accordance to G.4.2, shall be as small as operationally feasible, and shall be agreed to in writing by the Forest Service.
- 15. All landings will be designed to provide adequate drainage to protect the adjacent resources.
- 16. Areas to be covered with fill material shall be cleared of logs and cull woody material over 4 inches in diameter and/or 8 feet long.
- 17. Where side slopes exceed 45 percent, waste material shall be end-hauled to locations authorized in writing by the Forest Service.
- 18. Placement of rock ballast shall not take place unless mutually agreed to in writing by the Forest Service.
- 19. Rock ballast shall not exceed 4 inches in depth, unless mutually agreed to in writing by the Forest Service.

 Landing cut and fill slopes shall be left at no steeper than 1 ½ to 1 upon completion of contract operations.
- 20. Any culverts replaced shall be removed and disposed of by Contractor off of National Forest lands.

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K-F.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

Contractor's use of existing roads identified on Contract Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

Code	Use Limitations
х	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by Forest Service to inform the public of use restrictions. Contractor's use of roads coded R, A, or W shall be in accordance with the following restrictions:

See Restricted Road List Table.

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 $\frac{\text{K-F.1.2\#}}{\text{identified}}$ on Contract Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

Code	Use Limitations
X	Hauling prohibited
R	Hauling restricted
Ŭ	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by Forest Service to inform the public of use restrictions. Contractor's use of roads coded R, A, or W shall be in accordance with the following restrictions:

Restricted Road List

Road		T	ermini	Map	Description of
Number	Road Name	From	То	Legend	Restrictions
1900 ¹ / 1900387 ² /* 1900393 ² /*	Aufderheide	Hwy 126 1900408 1900408 1900	1900408 Unit 24 End of Road Unit 24	R R R	1/ Haul on Road 1900 is not allowed evenings or weekends, or during holiday periods (Memorial Day, 4th of July and Labor Day), unless waived by Contracting Officer. 2/ Haul will not be allowed on native surface roads outside the normal operating period. (Junel to Oct 31) Roads marked with asterisk (*) have limited strength and are likely to be damaged if used when adverse conditions exist in the roadbeds.
Borrow Haul					
1900410		1900	Borrow Source at Strube flat	R	Haul on Road 1900410 is not allowed evenings or weekends, or during holiday periods (Memorial Day, 4 th of July and Labor Day), unless waived by Contracting Officer.

K-F.1.3# - ROAD COMPLETION DATE (09/2004)

Construction of Specified Roads shall be completed no later than $\underline{10/31/2015}$; except for earlier construction completion dates for roads listed below:

Road Station Completion
Number Road Name From To Date

Completion date is binding on the party that constructs road, whether Contractor or Forest Service. Contracting Officer may modify the completion date in writing to conform to the Technical Proposal under G.3.1.1 at the request of Contractor.

When Contractor elects Forest Service construction of Specified Roads shown in contract advertisement, Forest Service may adjust construction completion date when road construction is delayed or interrupted for causes that qualify for an adjustment of the completion date of Forest Service; road construction contract. When qualifying delays or interruptions of road construction occur, Forest Service shall evaluate such occurrences and document any findings. The current status of any adjustment shall be available to Contractor on request. Promptly after the end of Normal Operating Season in which qualifying days occur, Forest Service shall give Contractor written notice of (a) number of qualifying days claimed, and (b) new construction completion dates. After all road construction is complete, Forest Service shall grant Contract Term Adjustment. Such adjustment shall be limited to road completion date delays that occurred during Normal Operating Season.

If Forest Service is responsible for road construction and the actual date of road completion is 1 year or more after the completion date stated above, Contractor may request a rate redetermination under D.3 for remaining volume. Such request must be made within 30 days of notification that road construction has been completed. Upon receipt of such request, Forest Service shall redetermine rates using standard methods in effect on the completion date of road construction. Rates to be established shall apply to all timber removed from Contract Area after the effective date of the rate redetermination.

Forest Service shall in no way be responsible for any delay or damage caused by road contractor in performing the road construction, except such delay as may be the fault or negligence of Forest Service.

When Contractor constructs Specified Roads and requests Contract Term Adjustment, completion dates shall be adjusted by number of days that qualify for such adjustment, provided such qualifying days occur before specified construction completion date. When Contractor desires to construct an alternate facility under F.2.6, Forest Service and Contractor shall agree, in writing, on a construction completion date for alternate facility. Contract Term Adjustment as noted above will apply. Completion date shall be adjusted where a Design Change or physical changes necessitate a modification of Specified Road construction work that increases the scope or magnitude of the required work.

If Contractor fails to complete construction of any or all Specified Roads by applicable completion date, as adjusted, Contract Term Extension shall not be granted.

As used in this provision, construction of a road is completed when:

(a) Contractor constructs Specified Roads and Forest Service furnishes Contractor with written notice of accep-tance under G.3.6 or

(b) Forest Service constructs road and furnishes Contractor with written notice authorizing use of road.

Notwithstanding F.1, Contractor shall not use a road that Contractor has elected for Forest Service to construct, until construction is completed and Forest Service furnishes Contractor with written notice authorizing use of road.

K-F.2.1.3# - DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (09/2004)

Contractor shall make a cash deposit for engineering services (preconstruction and construction) provided by Forest Service for reconstruction of National Forest system roads necessary to accommodate Contractor¿s use under this contract, pursuant to 16 USC 537.

The total amount to be deposited by Contractor for reconstruction related engineering services to be completed by Forest Service personnel or by public works contract is \$\frac{5}{60,278.00}\$. Contractor shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. In the event a different deposit schedule is agreed to, such deposit shall be due within 15 days after the date of issue indicated on the initial bill for collection, pursuant to E.4.

The amount of the required deposit will be shown as an associated charge on Contractor¿s Integrated Resource Account. Forest Service shall retain any unexpended deposit for reconstruction related engineering services.

The deposit for reconstruction related engineering services shall be commensurate with project need and Contractor¿s road use. Forest Service shall complete reconstruction related engineering services on the following schedule unless a different completion schedule is agreed in writing:

Road or	Term	nini	Engineering Services
Facility No.	From	То	Completion Date
N/A			

Reconstruction related engineering services may consist of some or all of the engineering work and expense of: preparing, setting out, controlling, inspecting, and measuring the reconstruction of a National Forest system road.

K-F.2.2.1# - MATERIAL SOURCES (09/2004)

Sources of local materials are designated on Plans and Contract Area Map. Forest Service assumes responsibility for the quality and quantity of material in designated sources. Contractor shall determine the equipment and work required to produce the specified product, including the selection of acceptable material that is reasonably available in the source that meets specifications. The designation of source includes the rights of Contractor to use certain area(s) for plant site, stockpiles, and haul roads.

Should the designated source, due to causes beyond the control of Contractor, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with F.2.5.3.

When Contractor elects not to use designated sources, Contractor shall furnish the specified product with no adjustment in unit rates. Quality testing shall be the responsibility of Contractor. Test results shall be furnished to Forest Service.

When Contractor elects not to use designated sources and the Schedule of Items lists pit development separately, cost allowance will be reduced under F.2.5.3 when Forest Service determines the work will not be required.

When materials are subject to a weight measurement, the specific gravity or weight/volume relationship used as a basis for determination of estimated quantities shall be:

Source I N/A , Source II N/A , and Source III N/A .

Contractor may, when agreed in writing, use on the project such suitable stone, gravel, and sand, or other material found in the excavation, and will earn a cost allowance for the excavation of such materials at the corresponding contract unit price and for the pay items for which the excavated material is used. Contractor shall replace, without additional cost allowance, sufficient suitable materials to complete the portion of the work that was originally contemplated to be constructed with such material. Contractor shall not excavate or remove any material, except that which is within the excavation limits, without written authorization from Forest Service.

When material is appraised from non-National Forest designated sources, owner charges for the material in terms of unit cost for royalties, purchase of raw materials, or finished products shall be as follows until N/A:

See Material Source Table.

Should quantity vary from that estimated, payment to owners shall be for units actually obtained. Contractor shall make arrangements with owner(s) for measurement and payment for royalties, purchase of raw materials, or finished products, as shown above.

Materials produced or processed from National Forest lands in excess of the quantities required for performance of this contract are the property of Forest Service, unless prior written agreement has been obtained to use excess material on other National Forest contracts. Forest Service is not obligated to reimburse Contractor for the cost of their production.

Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials shall be located to facilitate their prompt inspection. Sites on Forest Service administered land, approved by Forest Service, may be used for storage purposes and for the placing of Contractor¿s

plant equipment. All storage sites provided by Forest Service shall be restored at Contractor; expense. Contractor shall be responsible for making arrangements for storage on other than Forest Service administered lands.

When the construction of the portion of the project for which Temporary Roads used for hauling materials is completed, all such Temporary Roads shall be restored as nearly as practicable to their original ground profile, unless otherwise agreed in writing.

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$\underline{\text{K-F.2.2.1#}}$ - $\underline{\text{MATERIAL SOURCES}}$. (9/04)

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
N/A	N/A	N/A	N/A	N/A	N/A	N/A

 $\frac{\text{K-F.3.1\#}}{\text{accordance}} - \frac{\text{ROAD MAINTENANCE REQUIREMENTS.}}{\text{contract Road Maintenance Requirements Summary:}} \tag{9/04}$

Contract Road Maintenance Requirements Summary

	Ter	mini			Appli	cable F	rehaul	Road M	fainten	ance Sp	ecific	ations	
Road	From	То	Miles	T-803	T-811	T-813	T-834	T-836	T-838	T-839	T-842	T-851	T-891
1900387	Road 408	Unit 24	0.3	P		P			P		P	P	
1900408	Road 393	Unit 24/211	0.62	P	P				P		P		р
1900393	Temp Road	Road 408	0.2	P		P				P	P	P	
1900408	Road 393	Road 19	2.08	P	P				P		P		
1900000	Road 408	Hwy 126	1.5	P									T
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P = Contractor Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

	Ter	mini		Applicable During Haul Road Maintenance Specifications								ns	
Road	From	То	Miles	T-803	T-811	T-813	T-834	T-836	T-838	T-839	T-842	T-851	T-891
1900387	Road 408	Unit 24	0.3	P					P			P	
1900408	Road 393	Unit 24/211	0.62	P		1000			P				р
1900393	Temp Road	Road 408	0.2	P						P		P	
1900408	Road 393	Road 19	2.08	P					P				
1900000	Road 408	Hwy 126	1.5	P	D	D			- 1				
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P = Contractor Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

	Ter	mini		Applicable Post Haul Road Maintenance Specifications									
Road	From	То	Miles	T-803	T-811	T-813	T-834	T-836	T-838	T-839	T-842	T-851	T-891
1900387	Road 408	Unit 24	0.3						P				
1900408	Road 393	Unit 24/211	0.62						Р				р
1900393	Temp Road	Road 408	0.2							P			
1900408	Road 393	Road 19	2.08						P				T
1900000	Road 408	Hwy 126	1.5										
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P = Contractor Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

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ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

20	st ul	Treat	Д	P W as staked by F.S.	Д		
31	Post Haul	Block		P as staked by F.S.			
ω		Snow Removal					
,	Seasonal	Mainte- nance	T-838	T-839 W as staked by F.S.	П-838		
	it.	Width				g	
٥	Dust Abatement	Applic Rate				*	
	Ak	Product			,		
2		Surfacing	50 CY 1" Minus as staked by F.S.	50 CY 3" Minus as staked by F.S.			
4	Brush	And Log Out	OPT 3 FT. LEFT & 3 FT. RIGHT	OPT 2 FT. LEFT & 2 FT. RIGHT	OPT 4 FT. LEFT & 4 FT. RIGHT		
	йау	Comp	ব	A.	М	a	
2	Travel Way	X Width Slope	AI	AI	Ω %		14
	ŢΙ	Width	EX	EX	X		
7	Special Project	Specifi- cation	T-803 T-803-01F T-838 T-842 T-854	T-803 T-803-01F T-839 T-842 T-854	T-803 T-803-01F T-811 T-838 T-842 T-891	T-803	
1	Road No.	and Termini	1900387 1900408 To Unit	1900393 1900408 To End Of Road	1900408 1900 To Unit	1900 Hwy 126 To 1900408	1900410 1900 to borrow source

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Column No.	Heading	Entry	Explanation			
	Any	Blank	Except as otherwise described, no entry indicates Contractor is not authorized or required to perform the work item(s).			
	Any	RC	This work requirement applies only when haul of contract related construction materials occurs.			
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.			
3	Travel Way	EX	Contractor shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.			
		Numbers	Contractor shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.			
	,	IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).			
		A or B	If compaction is required.			
4	Brush and Log Out	Numeric & R and or L	Contractor shall remove brush for specified width on either or both the right (R) side or left (L) side of road.			
		As Staked	Limits of brushing are as staked or marked in the field.			
		OPT	Contractor may use hand or mechanical means of brushing.			
		Н	Only hand brushing may be used.			

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$\frac{\text{ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO}}{\text{K-F.3.1$\# - ROAD MAINTENANCE REQUIREMENTS}} \quad (9/04)$

Column No.	Heading	Entry	Explanation				
5	Surfacing	Aggregate Grading	Contractor shall place surfacing on roads listed according to the grading indicated.				
6	Dust Abatement	OPT	Product selection is Contractor's choice from those listed in Section T-812.				
is.		Product Abbr.	Unless otherwise agreed, Contractor is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.				
		EX	Contractor shall abate dust on the existing width				
*		Numbers	Contractor shall abate dust to the width indicated by entry.				
7	7 Seasonal W Maintenance		Waterbars and/or cross ditching shall be required prior to expected seasonal precipitation.				
		В	Entrance barriers shall be installed by Contractor prior to nonuse periods.				
8	Snow Removal	TS	Snowplowing authorized for Contractor's Operations without recreation access being provided per Section T-803 requirements.				
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.				
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.				
9	Post Haul	P	P denotes that work is Contractor's Responsibility to perform.				

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K-F.3.2# - ROAD MAINTENANCE DEPOSIT SCHEDULE (09/2004)

Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Contractor's performance of road maintenance, Contractor shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Contractor's commensurate use of each road listed in the Road Maintenance Plan in K-F.3.1#.

Contractor and Forest Service may agree in writing on adjustment of such rates. If Contractor uses roads under jurisdiction of Forest Service other than those listed in the Road Maintenance Plan, Forest Service shall establish rates commensurate with Contractor's use of such roads.

The Required Deposits for Forest Service work in lieu of Contractor performance and for deferred maintenance is: \$ **\$.44** per **Ton**.

The following table lists who Contractor will make deposits for road maintenance to, and the rate per unit of measure of the deposit. The Road Maintenance Agreement is available for inspection at the Forest Supervisor's Office.

Deposit Made To	Rate	Unit of Measure
N/A		

K-G.2.4# - SITE SPECIFIC SPECIAL PROTECTION MEASURES (09/2004)

Special protection measures needed to protect known areas identified on Sale Area Map or on the ground include:

Cultural Resource Protection Measures: N/A Wildlife and Botanical Protection Measures: N/A Cave Resource Protection Measures: N/A

K-G.2.4.1# - PROTECTION OF HABITAT OF NON-THREATENED, ENDANGERED, AND SENSITIVE RAPTORS (05/2005)

Location of areas needing special measures for protection of nesting non-TE&S raptors, colony nesting birds, and species with designated protection outlined in the Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (1994), are shown on the Contract Area Map and identified on the ground. Measures needed to protect such areas have been included elsewhere in this contract or as follows: N/A If protection measures prove inadequate or if other such areas are discovered, Forest Service may either terminate the contract under I.3.4 or unilaterally modify this contract to provide additional protection regardless of when such facts become known. Discovery of such areas by either party shall be promptly reported to the other party.

In the event of contract modification under this Subsection, Contractor shall be reimbursed for any additional protection required by the modification, provided that any work or extra protection required shall be subject to prior approval by Forest Service. Amount of reimbursement shall be determined by Forest Service using standard Forest Service rate redetermination methods in effect at time of agreed change and shall be in the form of a reduction in Current Contract Rates unless agreed otherwise in writing. However, in no event may Current Contract Rates be reduced below Base Rates.

K-G.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

Unless otherwise agreed to between Contractor and Forest Service, Contractor's Operations shall be performed in accordance with the following schedule.

See attached schedule.

SCHEDULE PURSUANT TO K-G.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

Subdivision	Operation Conditions	Purpose			
All	Restrict yarding operations to the Normal Operating Season.	Minimize soil impacts			
All	Restrict all operations approximately during the 3 rd week of October, including the Friday before, through the end of the following Friday.	Cascade bull elk rifle season.			
All	All instream work for road reconstruction shall occur between July 7 and August 15.	Minimize impacts to water resources.			
15	All contractual requirements shall be completed in the same Normal Operating Period.	Minimize impacts to soil and watershed resources and Road 1900393.			

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K-G.3.2# - PROTECTION OF RESERVE TREES (09/2004)

Contractor¿s damage or destruction of reserve trees described in K-C.3# will cause serious and substantial silvicultural or other damage to the National Forest. It will be difficult if not impossible to determine the amount of such damage. Therefore, Contractor shall pay as fixed, agreed, and liquidated damages \$_ \$100.00 for each <u>Wildlife Tree</u> reserve tree and \$ <u>N/A</u> for each <u>N/A</u> reserve tree damaged or destroyed by Contractor's Operations, in addition to amounts payable under D.4.5 and D.4.6.

Damage, as used herein, includes any injury to the living crown, bole, or roots of reserve trees. If areas are marked on the ground around such reserve trees, operation of heavy equipment or skidding of products within the area shall be considered to be damage to the tree.

K-G.4.0.5 - ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)

Contractor and Forest Service may agree to alternate removal requirements of Included Timber contained in A.2. Alternate removal requirements are to be set forth in an agreement signed by both Contractor and Contracting Officer. The terms of the agreement binds both parties and becomes part of the stewardship contract.

The development and execution of the agreement is based upon the determination by the Contracting Officer that removal of Included Timber is economically impractical if Contractor has no ready market for such logs in the tributary area. A tributary area is defined as the area in which the Contractor and competitors regularly deliver saw logs, or 200 miles from the Contract Area, whichever distance is greater.

The agreement for alternate removal requirements shall be executed prior to removing any timber from the Subdivisions included in the agreement. Alternate removal requirements shall apply only to whole units and not to portions of units. All material meeting alternate removal specifications shall be cut and removed to locations designated in the agreement.

Volumes of material with alternate removal requirements will be determined from the National Cruise report for the project. Contractor will be charged for the following:

- a) stumpage value at current contract rates of the alternatively removed timber;
- b) plus the cost of other work required by the Forest Service to dispose of alternatively removed material;
- c) plus the difference between the appraised transportation cost of the Sawtimber and/or Nonsawtimber material involved and the appraised transportation cost of the alternative;
- d) minus any work required to be completed by the Contractor associated with alternate removal requirements.

Charges will be debited to the Contractor's Integrated Resource Account.

Upon acceptance of the alternate removal requirements, the Subdivision will be removed from the Contract Area under G.3.6.

Title to material included in the alternate removal agreement shall remain with the Forest Service.

K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)

Notwithstanding G.4.1, G.4.1.1, G.5 and G.6.1, felling objectives shall be accomplished by the type of felling methods and equipment listed herein. Methods or equipment other than those specified may be approved. For Subdivisions shown in the following table, Contractor shall submit a cutting plan for Forest Service acceptance, prior to the start of felling operations.

See attached Table.

TABLE PURSUANT TO K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)

FELLING METHODS	SUBDIVISIONS
Directional felling shall be utilized to fall away from designated streamscourses, buffers, reserve trees, or as directed.	All
Directional felling shall be utilized to fall corridor trees into stream channel in riparian, as they are cut. Corridor trees will be left.	All
Directional felling shall be utilized to fall included timber into and/or toward gaps, wherever possible.	201, 203, 205
FELLING EQUIPMENT	SUBDIVISIONS
N/A	All

K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

Contractor shall submit for Forest Service approval a Yarding/Skidding Plan prior to the start of felling operations. Requirements other than those specified in the following table may be approved. When appropriate, such approval shall include adjustments in Current Contract Rates and revision of the Contract Area Map. In no such case shall the adjustments result in Current Contract Rates less than Base Rates.

Location of all skid roads and trails, tractor roads, skyline corridors, mechanized harvestor trails, forwarder roads, and other log skidding facilities, shall be approved prior to their use or construction.

See attached table for requirements.

TABLE PURSUANT TO K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

YARDING/SKIDDING REQUIREMENTS

SUBDIVISIONS

All

If included in your Technical Proposal and accepted by the Forest Service, <u>ground based</u> yarding permitted/restricted to predesignated and approved skidtrails.

Yarding and skidding is restricted to slopes 30% or All less unless otherwise agreed to by the Forest Service.

No more than 2 mainline skidtrails or skidroads shall radiate from landings. Secondary or feeder skidtrail or skidroad use will be maximized in order to minimize the number needed and to avoid excessive compaction and/or disturbance.

No ground based operations within 120' of any All streamcourse designated on the Contract Area Map.

Skid trails will be spaced no closer than 75 feet, All from center line to center line.

Pre-bunching equipment is permitted on slopes up to All 45%.

No fueling or fuel storage within 100' of a stream $\;\;$ All or body of water.

K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (07/2008)

Erosion prevention and control work required by G.6, shall be completed within 15 calendar days after yarding/skidding operations related to each landing are substantially completed or after Forest Service designation on the ground of work where such designation is required hereunder. Said time limit shall be exclusive of full days lost in Contractor's Operations due to causes beyond Contractor's control. Such on the ground designation shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground. After September 15, and as long thereafter as operations continue, the work shall be done as promptly as practicable. Damage resulting from Contractor's Operations due to failure to perform required work shall be repaired by Contractor.

On slopes greater than 30% percent, erosion control measures will be done with methods other than mechanized equipment, unless otherwise agreed.

Where soil has been disturbed or displaced on Contract Area by Contractor's Operations and where measures described in G.6 will not result in satisfactory erosion control or where subsoiling is shown on Contract Area Map, the following shall be performed. If applicable, timing of the work shall be coordinated with required scarification or subsoiling.

- (a) Where staked or otherwise marked on the ground by Forest Service, seed, fertilizer, and mulch will be applied as indicated in the attached seeding, fertilizing, and mulching schedule. All applications shall be current and done during the period from May 15 to October 15 unless otherwise agreed to. Applications shall be done only during favorable conditions. If Contractor and Forest Service agree, seed can be applied and covered within 10 days of ground disturbance, and may be done outside the required periods.
- (b) Where shown on Contract Area Map, landings, Temporary Roads and/or skidtrails/roads shall be scarified to a depth of 3" 6" inches to provide a seedbed for grass seed, fertilizer, and mulch. Seed, fertilizer, and mulch shall be spread evenly at the rates shown in the table. When the seed, fertilizer, and mulch are applied in separate operations, the second or third operations shall be within 10 days of the first or second.
- (c) Where shown on Contract Area Map, landings, Temporary Roads, and skid trails/roads used by Contractor shall be subsoiled to a minimum depth of 18" 22" inches, except that Forest Service may agree to lesser depths. Each subsoiler shank shall be equipped with a shoe and wings which has a total width of at least 18 inches. The design of the shank and wings will be such that the treated, compacted soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. The distance between subsoiler shank passes shall not exceed 36 inches. Treated areas shall span the total width of compaction. Subsoiling shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.
 - (d) When agreed to, Contractor may use alternate methods of erosion control.

Seed shall meet current Forest Service requirements, with the additional requirement that no seed containing any noxious weed seed in excess of established state limitations as listed in the current "State Noxious Weed Requirements Recognized in the Administration of the Federal Seed Act" publication will be used (commonly referred to as the "all states" noxious weed seed list). Seed shall be furnished separately or in mixture in standard containers clearly marked with: (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed); (5) percentage of weed seed content; and (6) certification that no noxious weed seeds in excess of established state standards are present. The contractor shall furnish the Government duplicate signed copies of a certificate, signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysis or the Society of Commercial Seed Technologists), certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts Standards within 12 months prior to date of application. This certificate shall include (1) name and address of

laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of germination, (6) percentage of purity, (7) percentage of weed seed content, and (8) certification that no noxious weed seeds in excess of established state limitations are present in any kind of seed.

Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer.

No seed may be applied without prior written approval by the government.

See attached application schedule.

APPLICATION SCHEDULE PURSUANT TO K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (07/08)

	AREAS		SEED		FERTILIZER		MULCH	
Subdivisi on	A) B) C)	SKID TRAILS FIRELINES TEMP. ROADS			APPLICATION		APPLICATION	
OR UNIT NUMBER	D) E)	LANDINGS OTHER	SPECIES 1/ MIXTURE	LBS/AC	TYPE 2/	LBS/AC	TYPE 3/	LBS/AC
ALL	Α,	C, D.			N/A	N/A	N/A	N/A

Seed mixture will be a mix of the following: winter wheat, spring wheat, or triticale. Seed will be certified weed free (Blue tag). Application rate will be 40 lbs/acre. Contractor or sub-contractor that does the actual purchase of the seed will coordinate where this purchase is made with the Forest Service.

- $\underline{1}/$ For sales in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:
 - 1. Variety (if certified as to variety) and kind.
 - 2. Quantity of seed (pounds or bushels).
 - 3. Class of certified seed (blue tags for certified seed).
 - 4. Inspection or lot number traceable to the certifying agency's records.

For sales in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The contractor shall furnish a copy of the seed analysis.

For state of California lands in Region 6, seed must be certified by the state of California, or by an independent agency or company that is approved by the state of California for "prohibited and restricted noxious weed free for the state of California."

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.

Legumes must be innoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the innoculant.

All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

- $\underline{2}/$ Fertilizer shall be a standard commercial fertilizer with guaranteed analysis of contents clearly marked on containers.
- 3/ Mulch shall meet the appropriate State's certification specifications, with evidence of its certification traceable to the certifying agency's records.

All skid trails/roads used by Contractor that have a mineral soil exposed for lineal distances based on the slope of the skid trail.

Waterbars will be spaced every 100 feet on slopes less than 10%, Waterbars will be spaced every 75 feet on slopes of 10-19%, Waterbars will be spaced every 50 feet on slopes of 20-39%, Waterbars will be spaced every 25 feet on slopes greater than 40%.

Water bar locations should occur where local terrain feature facilitates effective drainage of the skidtrail. Install waterbars at a 45-degree angle to the slope, pointing downslope towards the drain of the slope. Outlet shall be lower than the inlet of the waterbar at all times. Side berms shall not occur, which, would negate the transfer action of the waterbar. The outlet of the waterbar shall be armored with material that is present to aid in the reduction of erosion at the outlet.

Treated areas shall span the total width of compaction. Water barring shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.

K-G.7 - SLASH DISPOSAL (06/2008)

As used in the following Subsections, the term "slash" is vegetative debris including, but not limited to, cull logs, blasted or pushed-out stumps, chunks, broken tops, limbs, branches, rotten wood, damaged brush, damaged or destroyed reproduction, saplings or poles, resulting from Contractor's Operations, including construction of roads or other improvements under this contract. Slash resulting from the construction of Specified Roads shall be disposed of as provided for in Section 201 of the Standard and Special Specifications and as shown in Drawings.

Any burning of slash or refuse by Contractor is subject to K-H.2.0.1.

Forest Service may enter into a written agreement with Contractor for the Contractor to remove slash from landings, subject to D.4.1. Brush disposal deposits paid by the Contractor for the Forest Service to burn landing piles will be credited to the Contractor; integrated resource account in the amount shown in the brush disposal plan, less the amount needed by the Forest Service for final cleanup of the landings following removal of the landing slash piles by the Contractor. The credit will be made following the final removal of all Included Timber, and slash piles, from the Contract Area.

K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2008)

Contractor shall pile, burn, yard, construct firelines or otherwise treat slash defined in K-G.7, within designated areas. Work required of Contractor shall be in accordance with the following slash plan and specifications, and the Contract Area Map.

Unless otherwise agreed, or shown in the attached slash plan or specifications, when Included Timber is removed during Normal Operating Season, required slash work shall be completed within 30 days of removal of approximately three-quarters of the volume in the unit. When Included Timber is removed outside Normal Operating Season, required work will be completed within 30 days of the beginning of the next Normal Operating Season.

See following specifications.

DETAILED SLASH DISPOSAL PLAN PURSUANT TO K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2). (6/08)

Contractor responsibilities are as follows:

- A) Treatment of slash/fuels less than 3 inches diameter: All created slash less than 3 inches in diameter on the large end and over 3 feet long shall be treated by removing and piling at a designated location to meet required fuel loadings, as depicted in attachment #1.2. This does not mean that 100% of created slash will be required to be piled.
 - *Referenced in USDA Forest Service General Technical Report PNW-GTR-258 Photo Series for Quantifying Forest Residues in the Douglas-fir Hemlock type of the Willamette National Forest on pages 46 and 47; the 1-DFWH-PRE-19. See attachment #1.2
- B) Treatment of slash/fuels 3 to 9 inches diameter: All created slash between 3 and 9 inches in diameter on the large end and over 3 feet long shall be treated by removing and piling at a designated location to meet required fuel loadings, as depicted in attachment #1.3. This does not mean that 100% of created slash will be required to be piled.
 - *Referenced in USDA Forest Service General Technical Report PNW-GTR-258 Photo Series for Quantifying Forest Residues in the Douglas-fir Hemlock type of the Willamette National Forest on pages 12 and 13; the 1-DFWH-PRE-02. See attachment #1.3
- C) End results:
 - 0-3 inch material 6.3 Tons/acre 3-9 inch material - 4.8 Tons/acre Residual slash will not exceed 8-12 Tons/acre

See attachments #1.2 and #1.3.

- D) Construction and size of landing piles: The offeror shall pile substantially all created slash at least 1 inch in diameter on the small end and at least 3 feet in length. Created slash shall be piled as compact as possible and free non-combustible materials. Landing piles shall be a minimum of 6 feet in height and 6 feet in diameter. Height of piles should not exceed 25 feet and should be approximately equal to the diameter. The area around each pile shall be cleared of all created slash a minimum of 6 feet. All pieces extruding from piles shall be bucked off to facilitate covering after construction.
- E) Location of all landing piles: Slash piles will be located to minimize damage of standing green trees and snags during burning. Unless otherwise agreed, this will be construed to be at least 15 feet from standing green trees and snags. Piles should not be built on tree stumps or heat sinks. Piles should not be located in the bottom of draws, streams, or ditches and should not obstruct roadways.

K-G.8.1.5 - THIRD PARTY SCALING SERVICES (09/2004)

Notwithstanding the requirement for Forest Service or parties under contract to Forest Service to provide Scaling services under G.8.1, Scaling designated in A.10 shall be conducted by a third party Scaling organization approved by Forest Service. Scaling shall be done in accordance with A.9 and Contractor shall bear costs for Scaling service.

In the event third party Scaling service is suspended for causes such as strikes, termination of third party's approval to Scale National Forest logs by Forest Service, or Contractor's failure to pay third party Scaling costs, hauling operations shall be suspended until agreed alternate Scaling services are provided or service by third party is resumed.

When an approved alternate Scaling location pursuant to G.8.1.1 does not have an approved third party scaling organization as a commonly used Scaling services provider, Forest Service or parties under contract to Forest Service shall provide Scaling services at the approved alternate location. In such an event, the cost of waived third party Scaling listed in A.10 shall be charged to Integrated Resource Account.

If Forest Service and Contractor agree in writing that another party under contract to Forest Service will perform Scaling, the contract will be modified to include K-G.8.1.6 and Integrated Resource Account will be charged for such Scaling.

K-G.8.4 - USE OF PAINT BY CONTRACTOR (OPTION 1) (06/2006)

Notwithstanding G.8.4.2, use of paint by the Contractor within the Contract Area in the same color(s) used by the Forest Service in the preparation and administration of the contract will be by written approval of the Forest Service.

K-G.9# - STEWARDSHIP PROJECTS (09/2004)

Performance of stewardship projects shall be in accordance with the following specifications.

Stewardship Projects

$\underline{\text{K-G.8.5.1}}$ - $\underline{\text{WEIGHT OF LOST LOADS}}$ (06/13)

If weight (TON) is the unit of measure for payment purposes, Contractor shall present all loads for weighing and shall furnish a weight ticket for each load pursuant to a weighing services agreement. Any load for which no weight ticket is furnished shall be considered a lost sample load with a weight equal to the weight of the heaviest load presented during the billing period, as established by the Forest Service.

DESCRIPTION PURSUANT TO K-G.9# -STEWARDSHIP PROJECTS (09/2004)

Project Number 1 - Treatment of Slash/fuels

Project Number 2 - Road 1900393 Restoration.

<u>Introduction</u>: The objective is to reduce fuels on 83 acres and to remove the bio-mass from the landings or decking areas. This work is needed to reduce the risk of high intensity wildfire within the area. There are multi methods and different pieces of equipment and/or hand work that could accomplish the requested work.

Mandatory Stewardship Project 1 - Treatment of Slash/fuels

Desired fuel loadings post-treatment: range is 8-12 tons/acre with 0-3 inch material not to exceed 6.3 Tons/acre, and the 3-9 inch material not to exceed 4.8 Tons/acre.

See attachment: 1.1 - Project Description, Desired End result, etc.

1.2 - Series 1-DFWH-PRE-19, Photo Series.

1.3 - Series 1-D FWH-PRE-02, Photo Series.

3.1 - Map Area #1, #2 and #3.

4.1 - Table of Mandatory and Optional Stewardship Projects.

<u>Introduction</u>: The objective is to stabilize and restore Road 1900393. There are multi methods and different pieces of equipment and/or hand work that could accomplish the requested work.

Mandatory Stewardship Project 2 - Road 1900393 Restoration.

Desired stabilization of Road 1900393 and restore for project activity needs. This road will then be restored to a hydrological stable condition to drain properly and protect water quality.

See attachment: 2.1 - Project Description, Desired End result, etc.

3.1 - Map Area #1, #2 and #3.

4.1 - Table of Mandatory and Optional Stewardship Projects.

Contract Name: 7 Thin Stewardship Reoffer

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K-G.9# - STEWARDSHIP PROJECTS - Attachment 1.1

Project 1.0 - Treatment of Slash/fuels - All Subdivisions

Desired End Result: Treat slash to specifications as listed in the contract, K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2). See attachments 1.2 and 1.3.

<u>Project Location:</u> The location of the work sites are shown on the contract area map. This project work will occur within all subdivisions.

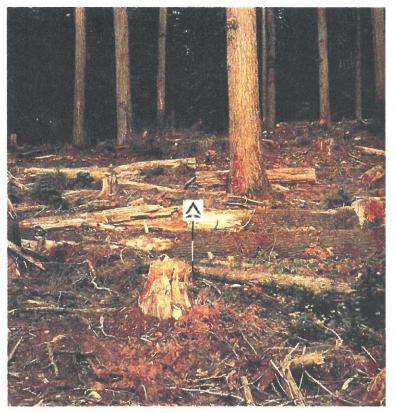
Technical Specifications:

- A. Reduce all created slash less than 3 inches in diameter on the large end and over 3 feet long shall be treated by removing or piling at a designated location to meet fuel loadings as described in attachments 1.2. THIS DOES NOT MEAN 100% of created slash will be piled.
 - *Referenced in USDA Forest Service General Technical Report PNW-GTR-258
 Photo Series for Quantifying Forest Residues in the Douglas-fir Hemlock
 type of the Willamette National Forest on pages 46 and 47; the 1-DFWH-PRE-19.
 See attachment 1.2.
- B. Reduce all created slash between 3 and 9 inches in diameter on the large end and over 3 feet long shall be treated by removing or piling at a designated location to meet fuel loadings as described in attachments 1.3. THIS DOES NOT MEAN 100% of created slash will be piled.
- c.
 *Referenced in USDA Forest Service General Technical Report PNW-GTR-258
 Photo Series for Quantifying Forest Residues in the Douglas-fir Hemlock
 type of the Willamette National Forest on pages 12 and 13; the 1-DFWH-PRE-02.
 See attachment 1.3.

DOWN AND DEAD WOODY FUEL LOADING

Size class (inches)	Load (tons/acre)		an diam. ^a (inches)
		sound	rot
0.0-0.25	1.0	0.1	
0.26-1.0	1.6	.5	
1.1-3.0	3.7	1.7	
Subtotal			
0-3 in	6.3		
3.1-9.0	9.3	5.4	6.1
9.1-20.0	21.9	14.3	13.1
>20.0	115.3	32.2	21.1
Subtotal			
⇒ 3 in	146.5	16.6	14.6
TOTAL	152.8		





STEREO PAIR: 1-DFWH-PRE-19





ADDITIONAL FUEL INFORMATION

Sound residue > 3-inch diameter:

W. hemlock

True fir

56% 16% Average residue depth: Average duff depth:

0.8 ft

Rotted residue > 3-inch diameter:

Other 20%

8%

4.0 in

Percent residue >3-inch diameter is based on number of logs.

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SERIES 1-D FWH-PRE-02

DOWN AND DEAD WOODY FUEL LOADING

Size class (inches)	Load (tons/acre)	М	ean diam. ⁸ (inches)
		sound	rot
0.0-0.25	1.1	0.1	
0.26-1.0	1.9	5	
1.1-3.0	5.5	1.7	
-Subtotal			
0-3 in	8.4		
3.1-9.0	4.8	5.1	5.6
9.1-20.0	5.1	12.3	11.4
>20.0	2.3		22.3
Subtotal			
>3 in	12.3	6.9	8.8
TOTAL 3-9 in	20.7 4.8	3	

a Mean diam.=quadratic mean.



STEREO PAIR: 1-DFWH-PRE-02





ADDITIONAL FUEL INFORMATION

Sound residue > 3-inch diameter:

Douglas-fir Other 52% 14% Average residue depth: Average duff depth: 0.3 ft 0.2 in

Rotted residue > 3-inch diameter:

34%

Percent residue >3-inch diameter is based on number of logs.

K-G.9# - STEWARDSHIP PROJECTS. Attachment 2.1

Project 2: Road 1900393 Restoration

<u>Desired End Result</u>: The stabilization of Road 1900393 and restoration for project activity needs. This road will then be restored to a hydrological stable condition to drain properly and protect water quality.

<u>Project Location</u>: The location of the work sites are shown on the Contract Area Map. This project work will occur within and adjacent to subdivision #15.

<u>Technical Specification</u>: Prior to the use of Road 1900393 the Offeror will need to perform the following work to provide minimum access required for Offeror's operations and associated Forest Service contract administration.

- A. Cutting roadway vegetation to a minimum width and height, as per, T-spec 842 and K-F.3.1#.
- B. Filling existing cross ditches and waterbars, filling road scours and reshaping the travel way for drainage, as per, T-spec 839 and K-F.3.1#
- C. Placing 50 CY offeror provided crushed aggregrate (3" minus) at locations staked by the Forest Service, as per, T-spec 813 and K-F.3.1#
- D. Upon completion of project activities this road will be physically blocked to traffic. The road will be restored to a hydrologically stable condition to drain properly and protect water quality.
 - 1. Shape travel way and roadbed to drain, T-spec 839,
 - 2. Install cross ditches/water bars (5 to 7) at locations staked by the Forest Service, as per T-spec 835, T-spec 839, and K-F.3.1#,
 - 3. One (1) road closure, earth berm at location staked by the Forest Service, as per T-spec 835, T-spec 839, and K-F.3.1#.

<u>K-H.1</u> - <u>PLANS</u> (05/2005)

The plan shall state how Contractor's representative or alternates will be contacted in a fire emergency, both during periods of operation and at other times such as evenings or weekends. Contractor shall certify compliance with specific fire precautionary measures included as Subsections under K-H.2 - Specific Fire Precautions, before beginning operations during Fire Precautionary Period (closed season) and shall update such certification when operations change.

If helicopter yarding is required, the plan shall include a schedule of rates mutually agreed to for computing Contractor costs incurred toward meeting Contractor's obligations under A.14, or for paying for helicopters controlled by Contractor and used under Forest Service direction for suppressing Operations Fires or other fires on Contract Area, excluding Negligent Fires.

K-H.2 - SPECIFIC FIRE PRECAUTIONS (05/2005)

When the industrial fire precaution level is I or higher, unless waiver is granted under K-H.2.2, specific required fire precautionary measures are as follows:

A. Fire Security.

Contractor shall designate in writing a person or persons who shall perform fire security services listed below on Contract Area and vicinity. The designated person will be capable of operating Contractor's communications and fire fighting equipment specified in the contract, excluding helicopters, and of directing the activities of Contractor's personnel on Forest fires. Such person must report any fire detected to Forest Service within 15 minutes of detection. In lieu of having the designated person perform the required supervisory duties, Contractor may provide another person meeting the qualifications stated above to direct the activities of Contractor's personnel and equipment during all fire fighting activities.

Services described shall be for at least 1 hour from the time Contractor's Operations are shut down. For the purposes of this provision, personnel servicing equipment, and their vehicles, who are not engaged in cutting or welding metal are excluded.

Fire security services shall consist of moving throughout the operation area or areas constantly looking, reporting, and taking suppression action on any fires detected. Where possible, the designated person shall observe inaccessible portions of helicopter operating areas from vantage points within or adjacent to Contract Area.

Contractor shall furnish fire security services based on the predicted industrial precaution level, obtained by Contractor from the appropriate Ranger District Headquarters. If predictions made after 6:00 p.m. local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in fire security services are indicated.

- B. Fire Extinguisher and Equipment (on Trucks, Tractors, Power Saws, etc.).
- (a) Each yarder or loader equipped with an internal combustion engine or other spark emitting source shall be equipped with a readily accessible fire extinguisher, with an Underwriter's Laboratory (UL) Rating of at least 5 B,C.
- (b) All power-driven equipment operated by Contractor on National Forest land, except portable fire pumps, shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C and one "D" handled or long handled round point shovel, size 0 or larger. In addition, each motor patrol, truck and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski, 3-1/2 pounds or larger.
- (c) Equipment required in (a) and (b) shall be kept in a serviceable condition and shall be readily available.
- (d) Each gasoline power saw operator shall be equipped with a pressurized chemical fire extinguisher of not less than 8-ounce capacity by weight, and one long handled round point shovel, size 0 or larger, except at a landing where a suitable fire extinguisher and shovel are immediately available. The extinguisher will be kept in possession of the saw operator at all times. The shovel shall be accessible to the operator within 1 minute.
- (e) Each helicopter shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C mounted inside the aircraft within reach of the pilot's operating position.
- (f) One refill for each type or one extra extinguisher sufficient to replace each size extinguisher required on equipment shall be safely stored in the fire tool box or other agreed upon place on Contract Area that is protected and readily available.

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- (g) At each area where helicopters are being serviced or supplied, a carbon dioxide fire extinguisher with a UL rating of at least 20 B,C will be provided on the site and placed where it is available for immediate use.
- C. Spark arresters and mufflers.

Each internal combustion engine shall be equipped with a spark arrester qualified and rated under USDA Forest Service Standard 5100-la as shown in the National Wildfire Coordination Group Spark Arrester Guide, unless it is:

- (a) Equipped with a turbine-driven exhaust supercharger such as the turbocharger. There shall be no exhaust bypass.
- (b) A multi-position engine, such as on power saws which must meet the performance levels set forth in the Society of Automotive Engineers (SAE) "multi-positioned small engine exhaust fire ignition standard, SAE recommended practice J335B" as now or hereafter amended.
- (c) A passenger carrying vehicle or light truck, or medium truck up to 40,000 GVW, used on roads and equipped with a factory designed muffler complete with baffles and an exhaust system in good working condition.
- (d) A heavy duty truck, such as a dump or log truck, or other vehicle used for commercial hauling, used only on roads and equipped with a factory designed muffler and with a vertical stack exhaust system extending above the cab.

Exhaust equipment described in this Subsection, including spark arresters and mufflers, shall be properly installed and constantly maintained in serviceable condition.

D. Fire Tools.

Contractor shall furnish serviceable fire fighting tools in a readily accessible fire tool box or compartment of sound construction with a hinged lid and hasp so arranged that the box can be secured or sealed. The box shall be red and marked "Fire Tools" in letters at least 1 inch high. It shall contain a minimum of:

- (a) Two axes or Pulaskis with a 32 inch handle.
- (b) Three adze eye hoes. One Pulaski may be substituted for one adze eye hoe.
- (c) Three long handled, round point shovels, size 0 or larger.

E. Tank Truck.

Contractor shall provide a tank truck or trailer, containing not less than 300 gallons of water, during yarding, skidding, loading, land clearing, right-of-way clearing, mechanical falling, and mechanical treatment of slash. Such tank truck or trailer shall be maintained in a serviceable condition and located within 10 minutes, round trip, from each operating side during Fire Precautionary Period (closed season), except as provided under H.2.1.

The tank truck or trailer shall be equipped with a pump capable of discharging 20 gallons of water per minute, using a 1/4 inch nozzle tip, through a 50 foot length of poly or rubber lined hose. In addition, 500 feet of serviceable hard rubber poly or rubber lined or FJRL hose of not less than 1 inch outside diameter, fitted with a nozzle capable of discharging a straight stream of 1/4 inch diameter and a spray pattern shall be immediately available for use. The tank, pump, nozzle and at least 250 feet, of the total 500 feet of hose, shall be connected and ready for use at all times. Synthetic hose may be used by

agreement.

If a trailer is used, it shall be equipped with a hitch to facilitate prompt movement. A serviceable tow vehicle shall be immediately available for attachment to the trailer and must meet the time requirements stated above. Such truck or trailer shall be equipped to operate for a minimum of 8 hours.

Where designated on Contract Area Map, Contractor shall provide a tank trailer or water source and pumping equipment, including accessories, which can be lifted and transported by the yarding system. The component parts shall meet all specifications above. The tank trailer or water supply and pumping accessories shall be deliverable to a fire, in area of operations, within 15 minutes of detection.

In lieu of the above tank trailer or water supply for helicopter operations, Contractor may provide a suitable helicopter water bucket with a 300 gallon capacity. When Contractor provides a water bucket, a water source shall be provided within 5 minutes round trip flight time from operating side.

F. Communications.

During Contractor's Operations, excluding powersaw falling and bucking, Contractor shall provide adequate two-way communication facilities to report a fire to Forest Service within 15 minutes of detection. Citizen Band radios (CB's) are not considered adequate two-way communications because FCC Regulations prohibit commercial use.

G. Smoking and Open Fire Restrictions.

Smoking and fires shall be permitted only at the option of Contractor. Contractor shall not permit open fires on Contract Area without advance permission in writing from Forest Service.

H. Blasting.

Blasting shall be permitted only for road construction purposes unless advance permission is obtained from Forest Service.

Whenever the Industrial Fire Precaution Level is II or greater, a fire security person equipped with a long handled round point No. 0 or larger shovel and a 5 gallon backpack pump can filled with water, will stay at location of blast for 1 hour after blasting is done. Blasting may be suspended by Forest Service, in areas of high rate of spread and resistance to control.

Fuses shall not be used for blasting. Explosive cords shall not be used without permission of Forest Service, which may specify conditions under which such explosives may be used and precautions to be taken.

I. Compliance with State Fire Laws.

Listing of specific fire precautionary measures in the foregoing Subsections is not intended to relieve Contractor in any way from compliance with State fire laws covering fire prevention and suppression equipment, applicable to Contractor's Operations.

J. Aircraft Communications.

Every aircraft used in conjunction with Contractor's Operations shall be equipped with an operable radio system. The radio system shall be capable of transmitting and receiving on VHF frequency 122.85 Megahertz (MHz) with a minimum output of 5 watts at the transmitter. The system shall be located and installed so that the pilot can operate it while flying. A shielded all-weather broad-band antenna shall be part of the system. Radio and antenna shall be properly installed and maintained.

Upon discovery or notification of a fire on Contract Area, all aircraft pilots controlled by Contractor

shall monitor VHF frequency 122.85 MHz when within 5 miles of a fire and broadcast their intentions.

K. Logging Block Equipment.

Contractor shall provide a serviceable 5 gallon backpack pump full of water, one axe, and one long handled round point shovel, size 0 or larger, at each haulback block through which a running line passes.

The area below such blocks must be kept clear of all flammable debris under 4 inches in diameter for a distance of 6 feet in all directions. Material larger than 4 inches that poses a fire risk, such as punky logs, must also be removed.

Contractor shall avoid line-rub on rocks or woody material which may result in sparks or sufficient heat to cause ignition of fire.

K-H.2.0.1 - BURNING BY CONTRACTOR (06/2006)

Notwithstanding the Fire Precautionary Period limitation of H.2, Contractor is required to obtain written permission from Forest Service prior to any burning on the National Forest Lands.

K-H.2.2 - EMERGENCY FIRE PRECAUTIONS (05/2005)

Contractor shall restrict operations in accordance with the Industrial Fire Precaution Levels attached. Forest Service may change the Industrial Fire Precaution Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Industrial Fire Precaution Levels when such changes are necessary for the protection of the National Forest. When sent to Contractor, the revised Industrial Fire Precaution Levels will supersede the attached levels.

INDUSTRIAL FIRE PRECAUTIONS SCHEDULE

LEVEL INDUSTRIAL FIRE PRECAUTION

- I. Closed Season Fire precaution requirements are in effect. A Fire Watch/Fire Security is required at this and all higher levels unless otherwise waived.
- II. Partial Hootowl The following may operate only between the hours of 8 p.m. and 1 p.m. local time:

power saws, except at loading sites; cable yarding; blasting; welding or cutting of metal.

III. Partial shutdown - The following are prohibited:

cable yarding - except that gravity operated logging systems employing non-motorized carriages may be operated between the hours of 8 p.m. and 1 p.m. local time when all blocks and moving lines are 10 feet or more above the ground, excluding the line between the carriage and the choker.

power saws - except at loading sites and on tractor/skidder operations between the hours of 8 p.m. and 1 p.m. local time.

In addition, the following are permitted between the hours of 8 p.m. and 1 p.m. local time:

tractor, skidder, feller-buncher, forwarder, or shovel logging operations where tractors, skidders or other equipment with a blade capable of constructing fireline are immediately available to quickly reach and effectively attack a fire start;

mechanized loading and hauling;

blasting;

welding or cutting of metal;

any other spark-emitting operation not specifically mentioned.

IV. General shutdown - All operations are prohibited.

The following definitions shall apply to these Industrial Fire Precaution Levels:

Cable yarding systems: A yarding system employing cables and winches in a fixed position.

Closed Season (Fire Precautionary Period): That time period each year when a fire hazard exists and as described in A.12.

Hauling: Where hauling involves transit through more than one shutdown zone/regulated use area, the precaution level at the woods site shall govern the level of haul restrictions, unless prohibited by other than the Industrial Fire Precaution Level system.

Loading sites/woods site: A place where any product or material (including but not limited to logs,

firewood, slash, soil, rock, poles, posts, etc.) is placed in or upon a truck or other vehicle.

Advance written waiver of the above precautions may be issued by the Contracting Officer or Forest Service Representative.

Such waiver, or substitute precautions under H.2.1, shall prescribe measures to be taken by Contractor to reduce the risk of ignition, and/or the spread of fire. The Contracting Officer or Forest Service Representative shall consider site specific weather factors, fuel conditions, and specific operations that result in less risk of fire ignition and/or spread than contemplated when precaution level was predicted. Consideration shall also be given to measures that reduce the precaution levels above. Contractor shall assure that all conditions of such waivers or substitute precautions are met.

Contractor shall obtain the predicted Industrial Fire Precaution Level from the appropriate Ranger District headquarters. If predictions made after 6:00 p.m., local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in restrictions or industrial precautions are indicated.

K-H.3.1 - ADDITIONAL AREA OF FIRE RESPONSIBILITY (05/2005)

The area within 200 feet slope distance of the center line of any road constructed or reconstructed under this contract on National Forest lands outside of Contract Area shall be considered as a part of Contract Area in connection with responsibilities under H.3 and H.4 until the road has been accepted in writing by Forest Service.

K-I.1.0 - DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY (05/2005)

Contractor and Forest Service hereby agree, acknowledge, and accept that there is no expressed or implied warranty provided by the Forest Service that guarantees the Contractor will be allowed to complete the removal of products sold under the terms of the contract. Upon execution of the contract, Contractor hereby acknowledges the acceptance of the risk that this contract is subject to interruption or termination as a result of litigation associated with the environmental analysis process used by the Forest Service in the planning of this project. If such interruption or termination occurs due to litigation, Contractor agrees to accept as full compensation for such interruption remedies pursuant to I.3.3, or for termination remedies pursuant to I.3.4.

K-I.2.1.2 - MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in A.20. Contractor will be notified whenever the Chief determines that a drastic reduction in wood product prices has occurred. If the drastic reduction criteria specified in 36 CFR 223.52 are met for 2 consecutive calendar quarters, after contract award date, Contracting Officer will add 1 year to the contract term, upon Contractor's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season, except that no single 3-month addition shall extend the term of the contract by more than one year. Contracting Officer must receive Contractor's written request for a market-related contract term addition before the expiration of this contract.

No more than 3 years shall be added to a contract's term by market-related contract term addition unless the following conditions are met:

- (i) The contract was awarded after December 31, 2006; and
- (ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

For each qualifying quarter meeting the criteria in paragraphs (i) and (ii) of this provision, the Forest Service will, upon the Contractor; written request, add an additional 3 months during the normal operating season to the contract, except no single 3-month addition shall extend the term of a contract by more than 1 year.

In no event shall a revised contract term exceed 10 years as a result of market-related contract term addition.

Additional contract time may not be granted for those portions of the contract that have a required completion date or for those portions of the contract where Contracting Officer determines that the timber is in need of urgent removal or that timber deterioration or resource damage may result from delay.

K-I.3.1# - CONTRACT CHANGES (OPTION 1) (05/2005)

Contract changes involving volumes and/or values will use a weight ratio of 3.0496 to convert net CCF cruise volumes to Tons.

K-I.6.8# (Option 1) - USE OF TIMBER (09/2004)

- (a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.).
- (b) Except for Alaska yellow-cedar determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Contractor or any person as defined in the Act (16 USC 620e).
 - (c) Timber in the following form will be considered unprocessed:
- (i) Trees or portions of trees or other roundwood not processed to standards and specifications suitable for end product use;
- (ii) Lumber, construction timbers, or cants intended for remanufacturing not meeting standards defined in the Act (16 USC 620e); and
 - (iii) Aspen or other pulpwood bolts exceeding 100 inches in length.
- (d) Unless otherwise agreed in writing, unprocessed Included Timber shall be delivered to a domestic processing facility and shall not be mixed with logs intended for export.
- (e) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Contractor shall furnish to Forest Service, upon request, records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Contractor or affiliates.
- (f) Prior to delivering unprocessed Included Timber to another party, Contractor shall require each buyer, exchangee, or recipient to execute an acceptable agreement that will:
 - (i) Identify the Federal origin of the timber;
 - (ii) Specify domestic processing for the timber involved;
- (iii) Require the execution of such agreements between the parties to any subsequent transactions involving the timber;
- (iv) Require that all hammer brands and/or yellow paint must remain on logs until they are either legally exported or domestically processed, whichever is applicable; and
 - (v) Otherwise comply with the requirements of the Act (16 USC 620d).
- (g) No later than 10 days following the execution of any such agreement between Contractor and another party, Contractor shall furnish to Forest Service a copy of each such agreement. Contractor shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.
- (h) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.
- (i) For breach of this Section, Forest Service may terminate this contract and take such other action as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Section, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS

Unless otherwise agreed, the following measures are required to provide adequate warning of hazards for users of roads and trails adjacent to Contractor's Operations.

Part I. Signing and Other Warning Methods:

(a) Signs. The following signs are required when Contractor's Operations are in progress adjacent to or on Forest Service controlled roads and trails:

MINIMUM LETTER SIZE AND LEGEND	MINIMUM SIZE AND SHAPE	WHEN AND WHERE REQUIRED
1. LOGGING OPERATIONS NEXT <> MILES (4" letters)	24" (rectangle) 36"	Min. 100 ft. outside of any continuous work areas, on roads listed in K-F.3.1# and trails listed in Part II.
2. LOGGING OPERATIONS (3" letters)	24" (diamond) 24"	To be used in conjunction with "Logging Operations Next <> Miles" and where work area is not continuous.
3. FOR LOGGING USE ONLY (3" letters)	24" (diamond) 24"	Required where roads listed in K-F.3.1# and temporary roads intersect with K-F.3.1# roads. Install a cross ditch to discourage use when sign is covered or removed for extended periods.
4. TRUCKS (4" letters)	24" (diamond) 24"	At critical intersections on roads listed in K-F.3.1# when traffic is heavy or otherwise exceeds volumes stated in Part II below. Remove or cover when the sign is not applicable.
5. END LOGGING OPERATIONS (4" letters)	24" (rectangle) 36"	Use in conjunction with "Logging Operations Next <> Miles" and "Logging Operations."
6. TREE FELLING AHEAD (3" letters)	24" (diamond) 24"	Required 200 feet in advance of danger area where timber is being felled adjacent to all roads, including temporary roads, and trails.
7. ROAD MACHINERY AHEAD (3" letters)	24" (diamond) 24"	Required at least 200 feet in advance of Contractor road maintenance operations on roads listed in Schedule K-F.3.1#.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS - G.3.3 Safety (continued)

All signs shall meet requirements as specified in Parts I and VI of the Manual of Uniform Traffic Control Devices (MUTCD).

Sign borders and lettering shall be black. Borders are 1/2 inch wide, inset 1/2 inch from outside edge of sign. All sign backgrounds shall be orange, except signs #1 and 5 which shall be reflectorized orange.

Signs shall be installed on posts, with a 5 foot minimum ground clearance, or on temporary supports complying with MUTCD standards.

All signs are to be removed or covered when operations are interrupted for seasonal nonuse or other extended periods.

Contractor shall furnish flag personnel and advance warning signs when cable or helicopter logging above roads or trails, felling adjacent to roads or trails, where logs being bucked may roll into roads or trails, and in areas where fallout from blasting may occur. On roads listed in KT-FT.3.1# and temporary roads, Contractor may temporarily block the road in lieu of furnishing flag personnel.

(b) Barricades. On roads listed in K-F.3.1#, if Contractor's Operations cause the traveled way or road shoulders to be constricted overnight, or longer, by such obstructions as decked logs, parked equipment, or piled slash, Contractor shall place barricades on both sides of the encroaching obstruction to safely channel traffic around such obstructions. Barricades shall remain in place until the obstruction is removed.

Barricades shall be Type II and meet specifications in MUTCD, Part VI. Barricades must be at least 3 feet high. Rails must be at least 2 feet long. Striping shall be alternating orange and white, sloping at a 45 degree angle, and reflectorized. For rails 2 feet to 3 feet long, striping shall be 4 inches wide. For rails longer than 3 feet, striping shall be 6 inches wide. Two rails, 8-12 inches in width, must face each direction.

Barricades shall be equipped with warning lights which shall be Type A low intensity flashing and shall be maintained so as to be capable of being visible on a clear night from a distance of 3,000 feet.

(c) Other Traffic Control Methods. The posting of CB channel signs may be authorized.

On roads listed in K-F.3.1#, Contractor may be authorized to install temporary gates, barricades (except cables), or natural barriers. The devices must be installed with the necessary hazard markers, be reasonably passable by Forest Service, and be removed prior to acceptance of the payment unit being served by the road.

Title

Date

Title

Date